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Van Dyke's Salamander
Plethodon vandykei

Range:
Western Washington, northern Idaho, northwestern Montana (Brodie and Storm 1970), and southern British Columbia (Wilson, Simon and Larsen 1989). Rocky Mountain populations are sometimes given status as a separate species (Highton and Larson 1979, Collins 1990).

Washington Distribution:
Has been collected from Clallam, Jefferson, Mason, Grays Harbor, Pierce, Lewis, Skamania, Pacific, and Wahkiakum Counties (Nussbaum et al. 1983).

Habitat Requirements:
Little is known about the habitat requirements of the Van Dyke's salamander. It has been found along rocky streams, and in wet talus and forest litter from sea level to 1500m (5000')(Wilson and Larsen 1988, Nussbaum et al. 1983, Wilson and Simon, unpubl. data). Aubry et al. (1987) found Van Dyke's salamanders among loose rocks on the moist floor of a lava tube near Mount St. Helens. This species is also presumably associated with riparian habitats in mature and old-growth coniferous forests (Jones and Atkinson 1989). In these habitats, the salamanders are thought to use downed logs (Jones and Atkinson 1989, Jones 1989). Jones (1989) located a nest in a partially rotted log [=decay class 3(Maser et al. 1979)].

Van Dyke's salamanders feed mostly upon small insects including many aquatic immatures (Wilson and Larsen 1988). Predators may include birds (Wilson and Larsen 1988) and garter snakes (Wilson, pers. comm.).

Limiting Factors:
Availability of moist, rocky substrate or decaying logs that are well-shaded.

Management Recommendations:
Clearcutting and removal of dead and downed material alter the moist microhabitat used by Van Dyke's salamanders. These practices should be avoided where Van Dyke's salamanders are found.

Maintain streamside management corridors adjacent to all size classes of streams with rocky or gravelly banks. Van Dyke's salamanders require both the moisture and the increased erosion protection provided by these corridors. This species' habitat likely includes many streamsides that are not used by significant numbers of resident game fish or anadromous fish (classified as Type 4 or Type 5 waters under the Washington Forest Practice Regulations). Logging activities that reduce the shade surrounding these waters should not occur when Van Dyke's salamanders are present. Yarding and heavy equipment operation should also not

occur within these sites.

Understory plants and noncommercial trees should be left in gravel and rock seepage areas during logging operations to prevent desiccation of Van Dyke's salamander habitat. Maintain at least 50% shade along stream banks and wet talus see page areas.

If logging occurs near wet talus slopes occupied by Van Dyke's salamanders, management strategies should follow those recommended for the Larch Mountain salamander (Plethodon larselli): 1) retain a 27.4m to 45.7m (90' to 150') border of trees along the periphery of the talus fields (Herrington and Larsen 1985); 2) external to this zone, retain at least 50% vegetation and as much slash as possible; 3) keep talus slopes clear of heavy machinery and do not drag logs across them.

Destructive collecting methods, such as tearing apart logs or removing moss, should be avoided (Larsen and Schaub 1982).

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Key Points:
Habitat Requirements:
· Found in wet places from sea level to 1500m.

Management Recommendation:
· Avoid clearcutting and removal of dead and downed material where Van Dyke's salamanders are found.
· Maintain riparian habitat along all size classes of streams when salamanders are present.
· Avoid reducing shade around Type 4 or Type 5 waters when salamanders are present.
· Maintain at least 50% shade along stream banks and talus areas.
· Protect talus areas used by Van Dyke's salamanders.
· Avoid destructive collecting techniques.